DOCUMENT RESUME

ED 236 813 EC 160 831

AUTHOR Crystal, Ralph M., Comp.
TITLE Learning Disabilities: Implications for Rehabilitation Research, Teaching, and Service. Kentucky Studies in Rehabilitation, Series 1, Monograph 1.
INSTITUTION Kentucky Univ., Lexington. Graduate Program in Rehabilitation Counseling.
SPONS AGENCY Kentucky Research Foundation, Lexington.
PUB DATE 82
GRANT IP82-055
NOTE 47p.
PUB TYPE Reports - Descriptive (141)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Adults; Educational Needs; Employment; *Learning Disabilities; *Models; Needs Assessment; Postsecondary Education; *Vocational Rehabilitation; Young Adults

ABSTRACT

The report covers issues in the rehabilitation of persons with learning disabilities (LD). Issues raised in an interdisciplinary conference on the rehabilitation needs of adolescents and adults with LD are identified for four areas (sample subtopics in parentheses): (1) definition, assessment, and service delivery (characteristics of effective assessment techniques, strengths and weaknesses of standardized test batteries with LD populations); (2) psychological and social issues (ways to promote self esteem); (3) educational issues (characteristics of effective programs for adults with LD); and (4) employment (career counseling, vocational planning, ways to combat negative employer attitudes). The second part of the report describes a project to provide rehabilitative services for LD students who have the potential for entering postsecondary programs. The model, developed by the University of Kentucky Graduate Program in Rehabilitation Counseling, will be used for diagnosis, treatment, and rehabilitation, with an emphasis on linking education and vocational planning. Diagnostic services will result in recommendations on postsecondary education, training, and employment opportunities. The information will then be used to develop a sound rehabilitation plan. The model calls for existing resources to be used in a coordinated manner. (CL)

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**Kentucky Studies in Rehabilitation**
**Series I, Monograph I**

*General Editors:*
RALPH M. CRYSTAL
BARBARA J. WITTEN

# Learning Disabilities: Implications for Rehabilitation Research, Teaching, and Service

*Compiled by:*
RALPH M. CRYSTAL
*with the assistance of*
SHARON BRADY

EC160831

**Graduate Program in Rehabilitation Counseling**
**The University of Kentucky**
**Graduate School / College of Education**
**Lexington, Kentucky 40506-0001**
**1982**

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Kentucky Studies in Rehabilitation

Series 1, Monograph 1

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Barbara J. Witten

# LEARNING DISABILITIES: IMPLICATIONS FOR REHABILITATION RESEARCH, TEACHING AND SERVICE

Compiled by:

Ralph M. Crystal

with the assistance of

Sharon Brady

The University of Kentucky
Graduate Program in Rehabilitation Counseling
124 Taylor Education Building
Lexington, Kentucky 40506

(606) 257-3834

1982

Published by

The University of Kentucky
Graduate Program in Rehabilitation Counseling
124 Taylor Education Building
Lexington, Kentucky 40506

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This project was supported, in part, by Grant IP82-055 from the University of Kentucky Research Foundation.

TABLE OF CONTENTS

Biographical Information . . . . . v

Acknowledgements . . . . . vi

Preface . . . . . vii

Introduction . . . . . 1

Rehabilitation Issues Related to Learning Disabled Individuals . . . . . 2

Learning Disability Needs Assessment Conference . . . . . 5

Definition, Assessment, and Service Delivery . . . . . 7

Psychological and Social Aspects of Learning Disabilities. . . . . 11

Psychological and Social Issues . . . . . 12

Educational Issues . . . . . 14

Employment and the Learning Disabled. . . . . 18

Employment Issues . . . . . 19

Recommendations for Research Studies & Changes in the Area of the Learning Disabled Adult . . . . . 21

A Diagnostic and Rehabilitation Model for Learning Disabled Clients. . . . 22

Abstract . . . . . 22

Background to the Project . . . . . 23

Literature Related to Learning Disabilities. . . . . 24

Rationale and Importance of the Project. . . . . 27

Description of the Project . . . . . 28

Implication for Rehabilitation Counselors. . . . . 32

Summary and Conclusions . . . . . 33

References. . . . . 34

Appendix A. . . . . 37

Appendix B. . . . . 39

## Biographical Information

Ralph M. Crystal, is Associate Professor, and Director of the Graduate Program in Rehabilitation Counseling at the University of Kentucky. He received a masters degree in rehabilitation counseling from New York University in 1972, and a doctoral degree also in rehabilitation counseling from the University of Wisconsin-Madison in 1977. Prior to coming to Kentucky, Dr. Crystal was an Assistant Professor and Research Director in the Rehabilitation Counselor Education program and Rehabilitation Research Institute between 1977-1981 at The University of Michigan. Dr. Crystal is a Certified Rehabilitation Counselor.

Barbara J. Witten, is Assistant Professor and Assistant Director of the Graduate Program in Rehabilitation Counseling at the University of Kentucky. She has a masters degree in rehabilitation counseling from the Pennsylvania State University, and a doctoral degree from Syracuse University in rehabilitation counseling. Dr. Witten is a Certified Rehabilitation Counselor.

Sharon Brady, is a graduate assistant and a candidate for a masters degree in the Graduate Program in Rehabilitation Counseling at the University of Kentucky. She recently received a fellowship from the Epilepsy Foundation of America to conduct a research project on the employment needs of individuals who have epilepsy.

ACKNOWLEDGEMENTS

The efforts of numerous individuals have been critical in the development of the Graduate Program in Rehabilitation Counseling's emphasis on learning disabilities. Faculty members Dwight Auvenshine and Doris Stilwell have been especially instrumental in providing technical expertise and support. Administrative support from Wimberly Royster, Dean of the Graduate School and George Denemakr, Dean, and Edgar Sagan, Associate Dean of the College of Education is acknowledged. Ricki Cook of the Kentucky Bureau of Vocational Rehabilitation provided a liaison for us with her agency and was, in addition a valuable resource person. At the regional level, Martha Carrick, the program's training liaison in the Atlanta Region IV office of the Rehabilitation Services Administration served as a valuable resource. Finally, the activities of this project could not have been completed without the assistance of the program's Administrative Secretary, Yvonne Howitz.

## PREFACE

The Graduate Program in Rehabilitation Counseling is an interdisciplinary program housed within the Graduate School at the University of Kentucky, leading to a Master of Rehabilitation Counseling degree. The program trains students to understand the physical, psychological, social, and economic needs of handicapped individuals in terms of vocational adjustment. Students are encouraged to select their electives to form a "support area," enhancing their skills and knowledge on one theme. With the activities reflected in this document, a support area is being developed and implemented in the area of learning disabilities. In addition to an instructional program, the goal is to develop research and service components on learning disabilities as well. In this regard, close working relationships exist between the program and the Kentucky Bureau of Vocational Rehabilitation, the Fayette (Lexington) County Public Schools, the University Office of Handicapped Student Services and other teaching, research, and service units on and off campus.

Lexington, Kentucky
June 1982

Ralph M. Crystal
Barbara J. Witten

## INTRODUCTION

In October 1981 the University of Kentucky Graduate Program in Rehabilitation Counseling (UK-GPRC) was awarded a Departmental Incentive Grant from the university's research foundation. The funds were used to conduct pilot research on the learning disabled as rehabilitation clients. The specific objectives of this project were to:

1. To conduct a pilot study of the psychological, vocational, social, educational, and related needs of learning disabled individuals.
2. To investigate employment related issues of the learning disabled.
3. To develop a conceptual framework for the conduct of a programmatic research effort on the learning disabled.
4. To prepare and submit a proposal for a long term research and training project on the learning disabled.

This report contains a report on (a) overall project and related accomplishments, (b) rehabilitation issues related to learning disabled individuals, (c) a report on a learning disability needs assessment conference sponsored by the UK-GPRC, and (d) an article on learning disability accepted for publication.

### Project and Related Accomplishments

Since this project was funded the UK-GPRC has (a) submitted and had accepted for publication an article "Diagnostic and rehabilitation model for learning disabled clients" by the Journal of Applied Rehabilitation Counseling, (b) conducted a workshop for students and field personnel on the rehabilitation of the adult learning disabled, (c) submitted a grant application to field test a diagnostic and rehabilitation model on the learning disabled to the Office of Special Education and Rehabilitative Services (the proposal

was not reviewed because money was not available to fund projects), (d) sponsored a one day interdisciplinary needs assessment conference on the rehabilitation of the learning disabled, (e) is participating with the Kentucky Bureau of Vocational Rehabilitation in developing a support system for rehabilitation clients who are university students, and (f) in the process of developing (June 1982) a proposal to establish a research and training center on learning disability to be submitted to the National Institute of Handicapped Research.

Rehabilitation Issues Related to Learning Disabled Individuals

The term learning disabilities is a specific designation for individuals who have normal intelligence but are experiencing difficulties learning. However, agreement among professionals on who is learning disabled has traditionally been difficult to obtain. The history of learning disabilities comprises various positions and rehabilitation procedures. The majority of approaches have focused on children and adolescents. This project, as indicated, will examine the rehabilitation and employment related needs (psychological, physical, social, vocational, economic, etc.) of the learning disabled adult.

Edgar (1978) reports that researchers Alfred Strauss and Heinz Werner working in the 1940s had the greatest impact of any group terms of understanding learning disabilities. Strauss and Werner studied the behavioral differences of retarded individuals who had demonstrable brain damage and those whose retardation was due to other causes. From these studies came a list of behaviors associated with brain damage. They then assumed that individuals who exhibited these behaviors but did not have "hard neurological signs" of brain damage could also be considered neurologically impaired. An implicit assumption of Strauss was that these individuals were suffering from impaired processing of information.

Learning disability is an ambiguous term used to classify a wide range of individuals. The National Adivsory Committee to the Office of the Education of the Handicapped in 1968 defined learning disabled children as:

> ...children... (who) exhibit a disorder in one or more of the basic psychological processes involved in understanding or in using spoken or written language. These may be manifested in disorders of listening, thinking, talking, reading, writing, spelling, or arithmetic. They include conditions which have been referred to as perceptual handicaps, brain injury, minimal brain dysfunctions, dyslexia, and developmental apharia. They do not include learning problems which are due primarily to visual, hearing or motor handicaps, to mental retardation, emotional disturbance or to environmental disadvantage.

To a great extent this defines the learning disabled by what they are not, as well as what they are.

Incidence and Etiology

Because of the lack of an agreed upon definition, the incidence of learning disabilities is difficult to calculate. According to Edgar (1978) incidence figures range from 1 to 20 per cent of the school age population. Learning disabled children are thought to suffer a deficit in the processing on information. The exact cause of this deficit has not been determined.

Behavioral Symptoms

To be classified as a learning disabled individual two factors must be present; these are, average tested intelligence and a failure to learn to read. However, a wide range of behaviors have been associated with learning disabilities and are often present in addition to the two conditions cited above. These behaviors may include hyperactivity, lack of coordination, perservation, immaturity, short attention span, inability to follow multiple directions, linguistic disorders, and poor retention (memory) skills.

Treatment Approaches

A wide range of treatment approaches exist to help the learning disabled individual. Two major treatment areas can be classified into Process and Task

group strategies. Process group approaches focus on training individuals in terms of basic psychological processes. This includes the development of good eye-hand coordination and the ability to discriminate spatial relationships. Task group strategies focus on altering existing teaching methods to train individuals in the desired behaviors. These techniques include controlling the learning environment by eliminating distracting stimuli and through behavior modification procedures.

Another treatment approach involves the use of a variety of pharmacological agents. Through the use of drugs, the individual's ability to handle various stimuli is altered. The individual is thus better able to process information.

To facilitate treatment, early identification is crucial. Because so many behavioral conditions can be present in the learning disabled individual, a key to treatment is early and accurate diagnosis. The focus of this project is on the adult learning disabled individual. Such a person has been diagnosed and has probably been involved in a number of treatment programs.

Vocational Rehabilitation of the Learning Disabled

Research and studies cited in the literature have focused on the learning disabled child and young adolescent. The vocational rehabilitation of such persons as adults has not been researched. The learning disabled are eligible (and feasible) for rehabilitation services as provided in the state-federal program.

It is likely that many of the treatment approaches used to teach the learning disabled child can be translated into rehabilitation strategies for the adult and used in rehabilitation work and personal adjustment programs, and for the development of independent living skills. For example, research needs to be conducted into the relationship between the impact of the disability (in this case the learning disability) and the skills necessary to

work at different jobs. This leads into dealing with vocational choice and personal and work adjustment training and attitudes. It has been hypothesized that many learning disabled young adults have delinquency problems. This may arise out of frustrations resulting from an inability to handle school and/or work. Perhaps many of these individuals have a learning disability which has not been identified. This suggests the need for research into the development of counseling strategies which would facilitate the rehabilitation counselor to help such individuals in the areas of vocational development, work adjustment, and independent living.

A comprehensive research program for the learning disabled adult, in terms of investigating the physical, psychological, social, emotional and vocational functioning of such individuals in relation to employment and independent living has not been undertaken. This proposal requests funds to develop a conceptual framework and a research agenda for a programmatic research effort in this area. The framework and the research priorities would be identified as a result of the pilot studies to be conducted as part of this project. This would lead to the submittal of a proposal to the National Institute of Handicapped Research for extramural funding for this research project.

Learning Disability Needs Assessment Conference

In March 1981 the UK-GPRC sponsored a one day interdisciplinary conference on the rehabilitation needs of adolescent and adult learning disabled individuals. The meeting was supported, in part, by funds provided by the Departmental Incentive Grant. Please refer to Appendix A for a roster of conference participants and their affilitation.

The meeting focused on four major areas of concern for the learning disabled (a) definition, assessment, and service delivery, (b) psychological and social aspects, (c) educational issues, and (d) employment issues. The

each conference participant was assigned to a group based upon his/her area of professional interest and expertise. During the morning the groups discussed issues in their topical area. A one page overview with suggested questions was provided each group. Appendix B contains the agenda for the meeting. In the afternoon session all groups met together. Individual presentations were made by a representative of each discussion group. These was followed by further discussion and refinement of the issues presented.

This section of the report contains a summary of the issues raised by each group. The overview statement is provided first. This is followed by the issues addressed in the discussion groups. In some instances comments by the editors are provided. The last part of this section is a compilation of research needs and recommendations.

## Definition, Assessment, and Service Delivery

The learning disabled are often not understood because the term encompasses a wide range of different problems. The common link is an identified or presumed neurological deficit. Might it be possible to establish a set of criteria that could be used to accurately define the learning disabled?

Assuming the above is a feasible task, how might professionals best assess the presence of a learning disability? What is the medical role in such an assessment? Are informal, subjective interviews valid? What standardized testing instruments are most often used? Are these valid and reliable? What additional diagnostic procedures need to be developed?

What programs for the learning disabled currently exist? Do these operate independently or are they connected in some kind of network fashion. What types of programs are most effective? What interdisciplinary combination of professionals are most effective in helping the learning disabled individual? What are the unanswered questions regarding types of services that are most effective for helping the learning disabled?

## Suggested Reaction Questions

1. What were various assessment techniques (regarding the LD adult) your group discussed and which of these techniques are most effective?

2. Upon close examination of assessment procedures and measures used with learning disabled adults, what additional diagnostic procedures do you feel are needed in this area?

3. Do you find any one assessment measure sufficient in diagnosing the learning disabled adult or are a wide range of procedures needed?

4. How can learning disabilities be defined? Do different criteria need to be established for different types of learning disability problems?

5. What do you feel are some of the major strengths and weaknesses of standardized psychological and neurophysical test batteries?

6. What service delivery approaches are effective in assisting the learning disabled individual?

7. Do you feel rehabilitation practitioners and counselors should receive specific training in learning disabilities and if so, what should this training include?

## Definition, Assessment, and Service Delivery

I. Common Assessment Techniques Used in Diagnosing a Learning Disability

1. Woodcock Johnson Psycho-Educational Test Battery
2. Goldman-Friscoe-Woodcock Test of Auditory Discrimination
3. Illinois Test of Psycholinguistic Abilities (Subtest: Memory for Designs) (ITPA)
4. Wechsler Intelligence Scale for Children (WISC-R)
5. Wechsler Adult Intelligence Scale (WAIS)
6. Wide Range Achievement Test (WRAT)
7. Peabody Individual Achievement Test (PIAT)
8. Key Math Diagnostic Arithmetic Test (KM)
9. Woodcock Reading Mastery Test
10. The Bender-Gestalt Visual Motor Test
11. Peabody Picture Vocabulary Test (PPVT)
12. Visual-Motor Integration Test (VMI)
13. The Wepman Test of Auditory Discrimination - The Reitan-Wepman Screening Aphasic Screening Test
14. a. The Purdue Clerical Adaptability Test
    b. Purdue High School English Test
    c. Purdue Mechanical Performance Test

Comment: Many of these tests do not have high reliability and/or validity coefficients and therefore their applicability in certain instances is questionable.

II. Characteristics of Effective Assessment Techniques

1. Measures of educational achievement are needed to determine if an individual shows a discrepancy between ability and achievement.
2. An accurate assessment of verbal cognitive ability and nonverbal cognitive ability is essential because cognitive dysfunction of some type seems to be common to various learning disabilities.
3. In order to choose particular procedures for diagnosis, educational planning, and programming, assessment procedures need to be individualized for each individual being tested.

4. A procedure for selective assessment should be utilized for each individual based on established assessment questions.

III. Additional Diagnostic Procedures Needed

1. More informal assessment procedures must be utilized. (i.e., How does an individual approach a task?)

2. Additional assessment approaches for visual and auditory processing are needed.

3. Assessment of adaptive behavior.

4. Speech and language and neurological testing.

IV. Is One Assessment Measure Sufficient in Diagnosing the Learning Disabled Adult or are a Wide Range of Procedures Needed?

1. It is not appropriate to establish one battery of tests or assessment procedures at this time due to the lack of sophistication in assessment measures, and due to the diversity of problems LD individuals encounter.

2. A wide range of measures are required by state law.

V. Defining Learning Disabilities

1. Definitions of learning disability that include a statement on the discrepancy between ability and achievement have the widest acceptance and utility.

2. Criteria for defining LD should include:

   (a) nonverbal cognitive abilities
   (b) verbal cognitive abilities
   (c) academic achievement
   (d) adaptive behavior
   (e) emotional/behavioral
   (f) language (expressive and receptive)
   (g) memory
   (h) organizational abilities
   (i) problem-solving abilities
   (j) learning strategies
   (k) vocational assessment
   (l) medical assessment

3. There cannot be one definition of learning disability. The definition depends, in part, on the particular discipline doing the defining.

4. Definitions could be based according to age.

5. Professionals need to consider the standard use of a common definition that would meet the needs of a changing world (e.g., new assessment procedures, modes of service delivery and expectations).

VI. Major Strengths and Weaknesses of Standardized Test Batteries with the Learning Disabled Population

1. Standardized tests fail to allow the flexibility needed to encompass the entire range of LD.

2. As with all individuals, there will be variations performance. Tests administered on any given day can reflect pupil fatigue, attitude or temperament rather than a specific skill in a subject area.

3. There are norm-referenced and objectives tests. Their reliabilities are known as they are widely used and accepted.

VII. Effective Service Delivery Approaches For Assisting Learning Disabled Individuals

1. The service delivery system for LD individuals is inefficient as this time. Although efforts are being made to establish networks of communications there is still a great need to establish and maintain linkages between various disciplines and service providers.

VIII. Should Rehabilitation Practitioners and Counselors Receive Specific Training in Learning Disabilities and if so, What Should This Training Include?

1. Counselors will need considerable skill and experience to understand the recommendations and implications received from different disciplines.

2. Counselors should receive exposure to neurology/neuropsychology and psychopathology and have a thorough knowledge of Diagnostic and Statistical Manual III.

3. Emphasis should be placed on modifications counselors can make e.g., how to best communicate with LD individuals.

4. Exposure to at least one or two courses covering every major handicapping condition should also be provided as training to work with the LD.

## Psychological and Social Aspects of Learning Disabilities

Adults with learning disabilities often confront a complex and frustrating world. What are the psychological and social ramifications in terms of adjustment and independent living faced by these individuals? What are the behavioral concomitants associated with these conditions? How do these characteristics interfere with the development of a positive self concept, job adjustment and satisfaction, and the ability to establish and maintain effective interpersonal relationships. Further, what is the impact of learning disabilities on the family unit. How does age, sex, race, ethnic background, and educational level effect the adjustment process. What counseling techniques and approaches are effective in helping learning disabled individual? What counseling services are available? How might these be improved?

## Suggested Reaction Questions

1. What did your group identify as major (a) psychological and (b) social problems confronting the adult learning disabled population?

2. What could assist in bringing about substantial improvements in social attitudes and self-esteem of the adult learning disabled population?

3. Discuss the role of professionals in bringing about this change.

4. What is the role that families can play in assisting the LD family member?

5. What are some needed research issues in this area?

## Psychological and Social Issues

I. Major Psychological and Social Problems of the Adult Learning Disabled Population

1. Problems interacting with peers and in social situations
2. Poor self-esteem
3. Low frustration levels
4. Hostility/Bitterness
5. Inappropriate family dynamics
6. Dependence versus independence struggle

II. Ways to Bring About Substantial Improvements in Social Attitudes and Self-esteem of the Learning Disability Adult Population

1. Assist the LD individual in...
   (a) learning to explain limitations when necessary
   (b) learning to understand non-verbal feedback
   (c) becoming more socially interactive by participating in group activities
   (d) learning to accept criticism
   (e) finding satisfaction in hobbies and recreational activities when frustration builds up in academic areas
   (f) changing comparative values to asset values
   (g) reinforcing oneself
   (h) attacking new problems in a positive step-by-step manner through task analysis
   (i) speaking out to persons who can change faulty situations

III. The Role of Professionals in Bringing About Change Identified in II Above

1. Increase awareness of university college faculty about LD.
2. Re-examine teaching strategies--vary teaching styles, e.g., small group with teaching assistants, etc.
3. Provide rap sessions and group problem solving approaches.
4. Remove stigma--let the LD individual know he/she is not responsible for the disability.

5. Offer professional counseling

6. Provide academic advising--sensitize advisors to LD needs in registration, admissions, styles of learning, etc

7. In introductory psychology classes, educate students by discussing all exceptionalities

8. Understand the state system responsible for overseeing the delivery services--bureaus, legislation, etc

9. Understand all relevent laws -- (i.e., P.L. 94-142)

10. Understand the school system

11. Be aware of potential school and community resources

12. Provide modifications whenever and whereever possible to facilitate successful attainment of goals

13. Provide social skills training--a necessary component for job preparation

14. Aid in successful adaptation of, and to the work environment

IV. The Role of Families in Assisting the Learning Disability Individual

1. Allow individuals with LD to become independent, with the expectation that they will act "grown-up"

2. Encourage social interaction

3. Professionals can serve as role models

4. Offer positive reinforcement when appropriate

Comment: A reason for poor social skills in the learning disabled population is partially due to the fact that social skills are difficult to teach and, hence, the least taught. Virtually all social skills are taught by verbal instructions, requiring a high degree of abstraction and the ability to generalize with subtle discriminations. In reality, the learning of social skills requires extensive practice, and learning by doing. The three areas identified present learning problems for LD individuals.

## Educational Issues

For the young adult with a learning disability what are appropriate educational and vocational training strategies given (a) prior differences in educational achievement and (b) different types of learning disabilities? Is training in compensation skills an effective approach? What are the advantages of a work-study approach for adolescents as compared to traditional academic, and classroom approaches? What are some innovative approaches that might be effective in the education of learning disabled individuals? What maintenance or continuing education needs exist for the LD adult? Are these being addressed? What is the role of the public education system (colleges, technical schools, etc.) in this area? What is the potential role and how could it be implemented?

## Suggested Reaction Questions

1. What did your group identify as the major issues in education of the LD population?

2. What are effective educational strategies for LD individuals?

3. Do different types of educational problems exist for various types of learning disabilities?

4. How might a multi-disciplinary approach in educational programming be desirable in working with the LD population?

5. What do you consider characteristics of effective educational programs for the LD adult population?

6. List components of an effective training program which might work to increase the learning disabled adult's self-esteem?

7. Could a prescriptive approach to remediation of educational deficiencies work successfully with the LD adult?

8. What are some issues to be considered in selecting goals in educational programs for the LD adult?

9. List some contributing factors involved in effective education programs for the LD college student?

10. Dealing with LD adult educational issues, in what area do you forsee a greater research need?

## Educational Issues

I. Major Educational Issues of the Learning Disabled Population

1. Promoting self-advocacy
2. Social skills
3. Precise assessment
4. Individual involvement
5. College
6. Compensatory skills
7. Self-image of the individual
8. Promotion of independent behavior

II. Effective Educational Strategies

1. Vocational assessments used in conjunction with educational assessments
2. Small classes with personal support
3. Cognitive strategies
4. Consistent advising
5. Role-playing for self-advocacy
6. Generalization of skills
7. Active involvement of student
8. Use of a multi-disciplinary approach
9. Use of visual learning formats

III. Uses of a Multidisciplinary Approach

1. A multidisciplinary approach is essential for effective educational programming.
2. Medical, speech and language personnel, educators, and counselors must all be involved.

IV. Characteristics of Effective Educational Programs for Adult Learning Disabled Populations

1. Active involvement of adults with learning disabilities in goal setting

2. Generalization of learning

3. Emphasize the participation of the adult learner in understanding his/her strengths and weaknesses

4. Generate independent behavior and positive self-image by active involvement

V. Components of Training Programs Which Could Increase the Learning Disabled Adult's Self-esteem

1. Training in social skills in order to:

   (a) generate more independent behavior by working on problem solving issues

   (b) get along with employers and co-workers

   (c) understand non-verbal cues

2. Know each individual's most effective mode of learning

3. Self-advocacy

4. Understanding of the self in relation to others

5. Awareness and support of the family

6. Recognition of the person first--disability second

VI. Use of a Prescriptive Approach to Remediation with the Learning Disabled Adult

1. A prescriptive approach is essential - emphasizing the need for looking at each LD adult as an individual and including them in the decisions that effect their educational program.

VII. Issues to Consider in Goal Selection

1. With continuing budget cuts at the university/college level, supportive services are expected to also be effected. How can institutions provide supportive services to LD students at the post secondary level?

2. Emphasis on the need to look at each LD adult as an individual.

3. Include the individual in decisions that will affect their educational programs.

VIII. Factors Involved in Effective Educational Programs for the LD College Student

1. Identify a support person

2. Eliminate attitudinal barriers.

3. Offer broader range of services (i.e., tutoring, taping, etc.)

4. Provide appropraite remedial and counseling opportunities.

5. Educate university faculty about the best ways to assist the LD individual in the learning process.

6. Sensitize faculty to the needs of LD students.

7. Assist LD individuals to develop appropriate coping and adjustment mechanisms in the university environment.

8. Help LD student to understand the non-LD world and how to best survive in it.

## Employment and the Learning Disabled

The focus of this group is on issues confronting the placement and retention of learning disabled individuals in employment settings. What are some of the basic problems facing the LD individual as he/she attempts to find satisfactory employment? Are employment problems internal (lack of skills, education, emotional stability), or external (resistance of employers, lack of understanding of LD, environmental barriers)? Where do solutions lie? Are public awareness campaign needed or are certain types of career counseling and training programs required? What coping skills do LD individuals use in employment to compensate for their disability? Are these effective? What role can employers play in furthering the employability of LD individuals? What other factors need to be considered with regard to employment?

### Suggested Reaction Questions

1. What are some of the more common employment problems faced by the learning disabled individual? How can these be overcome?

2. What are effective methods of providing career counseling and vocational planning for the learning disabled?

3. How can the LD individual be assisted is adjustment to employment?

4. What are employer attitudes to hiring LD individuals and how can negative feelings be overcome?

5. Do LD individuals need specific training in learning to cope with certain employment problems? If so, what are these problems and what techniques can be used to assist the individual in resolving these problems?

## Employment Issues

I. Common Employment Problems Faced by Learning Disabled Individual

1. Negative employer attitudes and misconceptions
2. Lack of motivation on the part of the LD individual
3. Impact of the disability itself (i.e., low reading level)
4. Low self-concept of the LD individual
5. High levels of unemployment in the community
6. The LD individual's possible inability to work successfully in a competitive atmosphere

II. Effective Methods of Providing Career Counseling and Vocational Planning

1. The major role of the school and rehabilitation agencies should be to provide career information and discuss specific job requirements to LD students as early as possible.
2. In-school training opportunities in the 10th and 11th grades would be helpful. In the 12th grade--job experiences out of school would be appropriate. This could enlighten and increase student motivation for employment.
3. Teacher training programs need to be involved more in career education and counseling techniques for the secondary level teacher who works with an LD population.

III. Methods to Assist the Learning Disabled Individual in Adjusting to Employment

1. Involve parents, teachers and counselors in the rehabilitation process. These individuals could also provide valuable client information and insights.
2. Teachers must have more training in pre-vocational concepts and needs. They must understand the places the students are going if adequate preparation is to occur.
3. Teachers should be provided with undated information on a community's employment outlook. This could turn be passed on to students. Training in marketable job skills would also be enhanced.
4. Inter-agency cooperation towards getting better services at the state and local levels.
5. Too many LD students are not succeeding due to poor instruction, teaching styles and practices and uninformed staff. Teachers need more training in understanding the needs of learning disabled.

6. The ability of the LD student to work independently and in group situations should be stressed as early as possible.

7. Vocational Rehabilitation, Vocational Education, Special Education, Elementary and Secondary Education personnel must work together to insure the earliest possible entry into the world of career education and employment for the LD student.

8. Developing positive attitudes (good self-concept, motivation) during early educational experiences, beginning with kindergarten, and emphasizing self-reliance, are crucial to vocational success.

IV. Employer Attitudes Towards Learning Disabled Individuals

1. It is difficult to find employers who are willing to take the time to present material on rules and expectations, in several ways, to insure that all employees comprehend. This is critical for the learning disabled.

2. At a time when the unemployment rate is between 9-11%, why should an employer hire someone for whom job modifications may need to be made?

3. After specialized attention in classes, it is difficult for many students to adjust to real-life situations where they are thrust back into the general population with the same expectations as everyone else.

4. The longer a student has been in a Special Education program, the more difficult it will be for them to deal with being treated as any other person seeking employment.

V. Ways to Combat Negative Employer Attitudes

1. Don't persists with labeling. Employees might not understand the implications of "LD."

2. Rehabilitation counselors must be able to show the employer the benefits of hiring their clients.

3. Let the employer know the LD individuals strengths--don't dwell on weaknesses.

VI. Helping the Learning Disabled Individual Cope with Employment Problems

1. Career exploration must be done. Many LD students have a very narrow, unrealistic impression about working.

2. Information flow and communication from rehabilitation counselors should become part of staffing as early as possible in each students school experience.

3. Efforts on the part of colleges and vocational schools to work with LD individuals and to not get rid of them because of any academic difficulties should be emphasized.

## Recommendations for Research Studies and Changes in the Area of the Learning Disabled Adult

The following topics/studies were suggested by conference participants as areas in need of additional research regarding the learning disabled adult:

1. Compile profiles of individuals who have adapted to being LD, and the interventions used in these cases.
2. A consensus must be reached on a definition before research can be done.
3. Certification changes in the state should be redirected so that a secondary Special Education certificate--particularly in the support areas such as content area subjects and counseling (or group dynamics) courses could be obtained.
4. State regulatory agencies must play more active role in implementing state and federal guidelines at this local level in admissions to Vocational Education programs.
5. Training for rehabilitation students on strategies to impact the public schools.
6. Efforts should be made to keep and improve current federal funding for states to operate on.
7. Does the LD adult differ from the school-age population in needs and if so, how?
8. Functional work-related limitations of LD adolescents and adults is a needed area of research investigation.
9. Are particular jobs more successful and satisfactory for LD clients?
10. Identify the most beneficial assessment procedures for LD.
11. Ways to establish more realistic vocational goals for LD persons are needed.
12. Development Project -- Now there are reading free vocational interest measures available geared to lower levels of cognitive functioning. Measures of interest in appropriate jobs for average but LD persons are not yet on the market.

## A Diagnostic and Rehabilitation Model for Learning Disabled Clients

The following article on learning disabilities authored by Ralph M. Crystal, Barbara J. Witten, and Jane Ann Wingate has been accepted for publication by the Journal of Applied Rehabilitation Counseling. It was written in early 1982 and is based, in part, on work being conducted by the UK-GPRC. Ralph M. Crystal is Associate Professor and Director of the program, Barbara J. Witten is Assistant Professor and Assistant Director of the program, and Jane Ann Wingate, formerly a graduate assistant, received her masters in rehabilitation degree in May 1982.

### Abstract

This article describes a project being implemented at the University of Kentucky to facilitate rehabilitation services for learning disabled individuals capable of entering a post secondary education/training program. The project links public school systems and the Bureau of Rehabilitation Services in the state of Kentucky, as well as the Special Education department and the Graduate Program in Rehabilitation Counseling at the University. The objectives of the project include assisting learning disabled individuals in understanding their educational and remedial learning needs, assisting clients in making post secondary education and career choices, and assisting in providing counseling and remedial support services. Since the project is now being implemented, no evaluation data is available at this time.

Learning disabilities (LD) is a general term that refers to a heterogeneous group of disorders. These disorders are made manifest by significant difficulties in the acquisition and use of one or more of the following activities: (a) listening, (b) speaking, (c) reading, (d) writing, (e) reasoning, and (f) mathematics. Learning disabilities are intrinsic to the individual and presumed to be due to a central nervous system dysfunction. The disability is not imposed on the individual as a consequence of economic deprivation, poor child rearing practices, faulty school instruction, or cultural differences. When present such factors may complicate rehabilitation, but they are not considered to be the cause of the learning disability.

The purpose of this article is to describe a diagnostic and evaluation model being developed by the University of Kentucky Graduate Program in Rehabilitation Counseling (UK-GPRC) for assisting learning disabled (LD) adolescents planning to enter a college or other post secondary training program. The parameters of the project include assisting learning disabled individuals in terms of: (a) understanding their educational and remedial learning needs, (b) assisting in vocational development related to individual interests and abilities, (c) assisting in educational and career decision making, and (d) assisting clients in developing skills for independent living based upon physical, psychological, social, economic, vocational, and educational needs.

## Background to the Project

A dilemma that rehabilitationists have faced was that learning disabilities had not been recognized by the medical community as a physical or mental disability (U.S. Department of Education, 1981). This situation changed dramatically in 1980 when the American Psychiatric Association in the Third

Edition of the Diagnostic and Statistic Manual identified LD as a mental disability in the category of Specific Developmental Disorder. The 1980 edition of the International Classification of Diseases, published by the World Health Organization includes specific learning disabilities in the category of Development Delay Disorder. It was not until 1981 that the Rehabilitation Services Administration included the learning disabled as eligible for rehabilitation services.

Several problems have confronted rehabilitation personnel in the area of specific learning disabilities. These problems include: (a) having a definition and criteria including appropriate diagnostic tools and categories to determine the presence of a learning disability, (b) establishing a rehabilitation plan which addresses the identified problems, and, (c) assisting LD individuals to achieve their vocational potential.

The field of learning disabilities has traditionally focused on the child and early adolescent, almost ignoring the adult (Anderson, 1974). Since the learning disabilities literature focuses on educational programs, it is understandable that attention centered on children and adolescents. However, these individuals will need more than educational services to survive in the world of work as adults (Washburn, 1975). Esson (1970) and Washburn (1975) indicate that the learning disabled experience considerable difficulty in living independently and in facing the demands of work. With the inclusion of the learning disabled as eligible for rehabilitation services, it seems inevitable that state rehabilitation agencies will be faced with an increased demand by LD individuals for services.

## Literature Related to Learning Disabilities

According to Anderson, (1974) interest in the field of learning disabilities has increased dramatically during the 1970's, however little

attention has been given to the adult learning disabled (Anderson, 1974). Despite the fact that learning disabilities are a common handicap in childhood, and that it is neither a self-limiting nor lethal disability, there is little or nothing to be found in the literature about learning disabilities, or Minimal Brain Dysfunction (MBD) symptomology in adults. It is as though an impassable chasm separates children with MBD from adults with such problems.

The National Advisory Committee on Handicapped Children (1968) offered the following definition,

> Children with specific learning disabilities exhibit a disorder in one or more of the basic psychological processes involved in understanding or using spoken or written languages. These may be manifest in disorders of listening, thinking, talking, reading, writing, spelling, or arithmetic. They include conditions which have been referred to as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. They do not include learning problems which are due primarily to visual, hearing, or motor handicaps, to mental retardation, emotional disturbance, or to environmental disadvantage.

Interpretation of this definition is characterized by great variability even though it has received widespread acceptance (Adamson 1979; and Anastasi, 1976).

Learning disabled individuals may demonstrate a variety of non-verbal dysfunction that interfere with daily living activities. Examples of some of these dysfunction are: (a) directional problems, e.g., an inability to distinguish left from right, (b) difficulty in demonstrating appropriate emotional behavior, (c) difficulty in moving limbs across the center of the body, (d) involuntary body movements, (e) involuntary emotional reactions,

(f) difficulty using two or more senses at the same time, and (g) visual perceptual problems (Brown, 1980 and Witten, 1981).

Typically, emphasis in helping disabled individuals has been placed on: educational remediation (Cox, 1977; Morse, 1977; and Rawson, 1977); selection and training of creative, dedicated and charismatic staff (Bury, 1976; Curris, 1975; Esson, 1970); use of a multidisciplinary appraoch (Friedman, 1978; Sabatino, 1976; and Wiig, 1972); accentuation of individual strengths (Vance, 1977; and Mosby, 1979); prescriptive education (Hallahan and Cruickshank, 1973); goal setting (Gallistel, 1978; Gardner and Gardner, 1978); compensation skills training (Cox, 1977); and assessment (Adamson, 1979; Foster and Sabatino, 1976; and Hammill, 1976).

Assessment plays a pre-eminent role in the delineation of the learning disabled population (Szuhay, 1980). Three general levels of assessment measures are used to evaluate a learning disability. These levels are: (a) informal tests and observational measures, including interviews, histories, structured tasks, anecdotal reports, and checklists; (b) standardized psychological tests assessing intelligence, achievement, perception, communication, and coordination skills; and (c) neuropsychological tests.

Despite the recent expansion of research and programming in the field of learning disabilities, programs for the adult learning disabled individual are not reported in the literature. The problems of the younger learning disabled individual are compounded with age because of the increasing complexity of the environment in which the person must cope. A major developmental task of adulthood is achieving productive independence. The young adult learning disabled individual is often unprepared to cope with this task (Szuhay, 1980).

Several authors have proposed programs for learning disabled individuals in secondary school, post-secondary settings, and college. Vance (1977) advocated the use of compensatory teaching that: (a) bypasses weaknesses and emphasizes strengths, (b) a task analysis approach to teaching that breaks down skills into component parts, (c) skill development from one level to another, and (d) the use of computer based reference materials. Shelton (1976) recommended that college counseling centers take the initiative in providing needed services to learning disabled students. The program he recommended includes: goal setting, a reduced academic load, use of tape recorders and other aids, remedial tutoring, time structuring and organization aids.

Deshler, Lowery, and Alley (1979) found the lack of vocational programming in secondary schools to be the primary contributor to the problems faced by the adolescent and adult learning disabled in the world of work. Washburn (1975) stated that seventy-five percent of all secondary school learning disabled students leave high school unemployed and without plans for a job or job training. Black (1976) presented an analysis of vocational rehabilitation and occupational education for learning disabled individuals in North Carolina. She cited the need for more programs, and the advisability of beginning such programs in junior and senior high schools.

## Rationale and Importance of the Project

The purpose of the project is to develop, implement, and evaluate a model for the delivery of rehabilitation services for the learning disabled. The project will focus on learning disabled individuals who have the potential to enter a post secondary education program. Using existing

diagnostic and treatment services, the project will link the public school systems and the Bureau of Rehabilitation Services in the state of Kentucky, as well as the Special Education Department, the Graduate Program in Rehabilitation Counseling, and the Office of Handicapped Student Services at the University of Kentucky.

To a certain extent learning disability has been a "wastebasket" term used to classify people when no other clearly indicated disability was evident. The criteria to diagnose a learning disability have often been divergent. In addition, when another disability such as mild mental retardation is present, it is difficult to determine: (a) which is the primary disability, (b) the extent each disability contributes to the learning problems, and (c) the appropriate treatment (education and rehabilitation) modality to employ.

For these reasons the project will employ a strict definition of learning disability. This will facilitate the evaluation of the project, and aid in dissemination and utilization of project activities. Using the Educational Assessment Clinic (to be described in the next section) of the Department of Special Education at the University of Kentucky, the project will use as subjects those individuals diagnosed as learning disabled who do not have another apparent disability as either a primary or secondary disability. It is assumed that individuals who participate in the project will have an intellectual level that is in the average range, are capable of participating in a post secondary education program, and have the ability to live and function independently.

## Description of the Project

The overall goal of the project as stated is to develop, implement, field test, and evaluate the impact of a diagnostic and rehabilitation

program for individuals classified as having a learning disability and who are capable of entering a post secondary education or training program. The following are the specific project objectives:

1. Identify the educational and rehabilitation needs of learning disabled students.
2. Assist public schools in preparing learning disabled individuals to enter post secondary programs.
3. Assist rehabilitation professionals in identifying and articulating their diagnostic and evaluation questions and information needs.
4. Assist learning disabled post secondary clients in identifying their vocational objectives.
5. Assist in the adjustment process of learning disabled clients in terms of independent living and remedial, tutorial, and counseling assistance.
6. Demonstrate the value of a diagnostic program to assist learning disabled clients to choose a vocational goal and be provided assistance in implementing that goal.

The project components are described in the following sections.

Conceptual Framework

In order to implement the project, a conceptual framework has been developed. To facilitate the development of the framework a needs assessment conference was conducted. In the initial phase of the conference participants were asked to identify and translate needs of the learning disabled into employment and independent living skills in terms of physical, psychological, social, vocational, educational and economic functioning. In addition, participants were asked to identify counseling strategies and skills necessary to work with learning disabled individuals.

The second phase of the conference was an assessment of post secondary educational opportunities and their relationship to employment opportunities. These were examined in terms of the learning abilities of LD individuals. Resulting from this activity, project staff have information available for clients on: (a) post secondary educational and training opportunities and the learning skills necessary to complete these programs, (b) employment opportunities based on the educational and training programs, as well as the skills necessary to be successful in each occupation, and (c) knowledge of the relationship between (a) and (b), and matching these to the needs of learning disabled clients.

Diagnostic Procedures

Diagnostic procedures are being developed in coordination with the Educational Assessment Clinic (EAC) of the Department of Special Education, the Kentucky Bureau of Rehabilitation Services (BRS), and the Fayette (Lexington) County Public Schools. Existing diagnostic procedures and instruments of the EAC will be supplemented with additional diagnostic information required by BRS counselors. This will include occupational interest inventories, and other vocational exploration and evaluation procedures.

The EAC conducts evaluations to determine the dimensions of learning problems of children. The unit has an affiliation with the University of Kentucky Medical Center. Assessment services include formal and informal educational testing, speech and hearing assessment, as well as consultation with parents and teachers to assist in establishing educational plans. All services are designed to evaluate learning disabilities.

Support Services

In conjunction with the Fayette Schools and BRS, project staff will establish and maintain support services in the areas of remedial, tutorial, and counseling assistance. This will assist clients entering post secondary education situations in successfully completing those programs. For individuals entering an academic program at the University of Kentucky, these support services will be coordinated with the Office of Handicapped Student Services.

Assessment and Rehabilitation Procedures

The following is an overview of the project procedures:

1. Clients/students are referred by the Fayette Schools and BRS to the EAC.
2. Referral of individuals eligible for BRS services are made.
3. The EAC conducts diagnostic evaluations to determine the nature of the learning disability, including an assessment of vocational potential and interests as well as other aspects of functioning.
4. Based upon the EAC evaluation, project staff prepare reports for the referral source.
5. The assessment report includes information and recommendations on post secondary education, training, and employment opportunities.
6. In conjunction with the referral sources, project staff assist in establishing and maintaining remedial, tutorial, and counseling assistance for individuals who have completed the EAC diagnostic procedures.
7. Support services will be coordinated while the client/student is preparing to enter a post secondary program, and once the person actually enters the program.

8. In coordination with BRS, counseling services will be provided to help clients make appropriate education, training, and career decisions.
9. Clients will be monitored and tracked as they proceed through their post secondary program and subsequent employment. Counseling and adjustment assistance will be provided throughout this process.

Dissemination and Utilization

The materials developed as a result of the project will be available to interested parties as part of a utilization package. Sites for replication of the project will be encouraged.

Implication for Rehabilitation Counselors

The practitioner will benefit from the Kentucky assessment model in several ways. First, a logical, systematic, and comprehensive approach will be available to provide diagnostic information upon which a sound rehabilitation plan can be developed. Second, the model provides for a coordination and integration of services from a variety of programs and disciplines. Third, the approach utilizes resources in an efficient and effective manner.

Since serving LD individuals is a new area for rehabilitation counseling, having a service delivery model which includes existing resources will ensure that diagnoses are accurate and that experts in this field will be available for consultant and assistance. In working with other disciplines, it is important that rehabilitation counselors articulate their diagnostic and evaluation information needs. If assessment resources are not made aware of these needs, the data provided may not be useful for vocational planning and other rehabilitation activities.

## Summary and Conclusions

In summary, the goals and objectives of this project address critical areas in the education and rehabilitation of learning disabled individuals. By employing existing diagnostic and rehabilitation resources, a model for diagnosis, treatment, and rehabilitation with an emphasis on linking education and vocational planning has been developed and will be field tested and evaluated.

The focus will be on helping public schools and BRS counselors to assist in the preparation of learning disabled students in entering post secondary programs by providing data which can be used to identify, and implement vocational and career goals. The activities of the project are enhanced by the fact that LD individuals are now eligible for vocational rehabilitation services.

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Appendix A

## List of Participants

Ralph M. Crystal, Director
Associate Professor
Rehabilitation Counseling
University of Kentucky
Lexington, KY 40506

Dwight Auvenshine
Associate Professor
Educational Counseling & Psychology
University of Kentucky
Lexington, KY 40506

Doris Stilwell, Assistant Professor
Field Placement Coordinator
Rehabilitation Counseling
University of Kentucky
Lexington, KY 40506

Barbara Witten, Assistant Director
Assistant Professor
Rehabilitation Counseling
University of Kentucky
Lexington, KY 40506

Sharon Brady
Graduate Student
Rehabilitation Counseling
University of Kentucky
Lexington, KY 40506

Jane Ann Wingate
Graduate Student
Rehabilitation Counseling
University of Kentucky
Lexington, KY 40506

Yvonne Howitz
Administrative Secretary
Rehabilitation Counseling
University of Kentucky
Lexington, KY 40506

Nancy La Count, Unit Director of LD
Bureau of Education for Exceptional Children
Capital Plaza Tower
Frankfort, KY 40601

Mae Marie de Quan
Department of Pediatrics
University of Kentucky
Medical Center
Lexington, KY 40506

Jake Karnes, Director
Handicapped Student Services
University of Kentucky
Lexington, KY 40506

Alberto Mazzoleni
Consumer
Lexington, KY 40506

Quaisar Sultana, Chairperson
Department of Special Education
Eastern Kentucky University
Richmond, KY 40475

Roy Meckler, Ph.D.
Department of Special Education
Eastern Kentucky University
Richmond, KY 40475

Jim Cole
Special Vocational Programs Unit
Bureau of Vocational Education
Lexington, KY 40504

Marilyn Noethen
Educator
Bryan Station Senior High
Lexington, KY 40505

Jennifer Wagner
Educator
Bryan Station Senior High
Lexington, KY 40505

Jackie Miller
Educator
LaFayette High School
Lexington, KY 40506

Diana Trenary, Director
Clinical Experiences
Human Development Program
University of Kentucky
Lexington, KY 40506

James C. Norton, Ph.D.
Department of Psychiatry & Neurology
University of Kentucky
Medical Center
Lexington, KY 40506

Sherry Stewart
Educator
Tates Creek High School
Lexington, KY 40502

Linda Victor
Educator
Henry Clay High School
Lexington, KY 40506

Jean Arnold
Fayette County Public Schools
Lexington, KY 40506

Marty Martinson, Ph.D.
Human Development Program
University of Kentucky
Lexington, KY 40506

Robert J. Baumann, M.D.
Department of Neurology
University of Kentucky
Medical Center
Lexington, KY 40506

Charles McFadden
Division of Program Development
Bureau of Vocational Rehabilitation
Frankfort, KY 40601

Kathryn Porter
Educator
Tates Creek Junior High School
Lexington, KY 40502

Becky Roberts
Opportunity Workshop of Lexington
Lexington, KY 40505

Ricki Cook, LD Specialist
Bureau of Rehabilitation Services
Capital Plaza Tower
Frankfort, KY 40601

Mary Franke
Developmental Studies
University of Kentucky
Lexington, KY 40506

Phyllis Farson
Bureau of Rehabilitation Services
Lexington, KY 40511

Carole Kruse
Bureau of Education for Exceptional Children
Capital Plaza Tower
Frankfort, KY 40601

Fran Clark
Department of Special Education
University of Louisville
Louisville, KY 40292

Natalie Patterson
Fayette County Schools
Lexington, KY 40506

Bob Fortney
Tates Creek High Work/Study Program
Fayette County Schools
Lexington, KY 40505

Appendix B

LEARNING DISABILITIES AND REHABILITATION

March 29, 1982

Agenda

| | |
|---|---|
| 8:00 AM - 8:30 AM | Registration |
| 8:30 AM - 9:00 AM | Welcome and Introductions - Ralph M. Crystal |
| 9:00 AM - 9:30 AM | Overview of LD Issues and Trends - Nancy LeCount |
| 9:30 AM - 11:45 AM | Group Seminars "Exploring the Problems"<br>Psychological and Social Problems - Room A<br>Assessment and Service Delivery - Room B<br>Employment Issues - Room C<br>Education Issues - Room H |
| 12:00 PM - 1:30 PM | Lunch - The President's Room UK Student Center<br>Remarks - W.C. Royster, Dean UK Graduate School |
| 1:30 PM - 2:30 PM | "Exploring the Solutions" Presentations from each group |
| 2:30 PM - 2:45 PM | Break |
| 2:45 PM - 4:00 PM | Discussion of Group Presentations |
| 4:00 PM - 4:30 PM | Summary and Closing - Ralph M. Crystal |